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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/731,338	12/09/2003	Robert Alois De Coninck	CM-2582	3544

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EXAMINER

PATTERSON, MARC A

ART UNIT	PAPER NUMBER
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1772

DATE MAILED: 07/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/731,338

Applicant(s)

DE CONINCK ET AL.

Examiner

Marc A Patterson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-45 is/are pending in the application.
- 4a) Of the above claim(s) 23-45 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>1/24/05</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1 – 22, drawn to a hermetically closed container, classified in class 428, subclass 35.7.
 - II. Claims 23 – 45, drawn to a process for the manufacture of a hermetically closed container, classified in class 156, subclass 60.
2. Inventions II and I are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product can be made by a materially different method, such as heat sealing at a temperature of 30000.
3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.
4. During a telephone conversation with Mr. Carl J. Roof on May 2, 2005 a provisional election was made with traverse to prosecute the invention of I, claims 1 – 22. Affirmation of this election must be made by applicant in replying to this Office action. Claims 23 – 45

withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1 – 12, 16 – 18 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kucherer (U.S. Patent No. 5,123,573) in view of Ford (U.S. Patent No. 6,053,326) and Swoboda et al (U.S. Patent No. 6,740,373 B1).

With regard to Claims 1 and 9 – 11, Kucherer discloses a hermetically closed (air – tight; column 3, lines 16 – 19) container (column 2, lines 52 – 56) for packaging food products (column 1, lines 19 – 20), therefore humidity sensitive food products, comprising a tube shaped body (cylindrical; column 7, lines 49 – 53; Figure 1) made of a composite material comprising an outer cardboard layer (column 7, lines 64 – 65), outer coating layer (sealable plastic coating on the outside; column 8, lines 1 – 7), an oxygen barrier layer covering the cardboard layer on the inside (metal foil, therefore an oxygen barrier, and comprising any metal including aluminum; column 7, lines 59 – 64) and an inner, heat sealable coating of a thermoplastic material (sealable, therefore thermoplastic, coating on the inside; column 8, lines 1 – 7), a closure in the form of a sealed tear off membrane (closure membrane having a prepared opening protected by outside from a cover; column 8, lines 8 – 11) comprising an oxygen barrier layer

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and an inner coating of a thermoplastic heat – sealable material (column 8, lines 1 – 7); and a deep – drawn bottom made of a composite material comprising a cardboard layer (column 7, lines 64 – 65), an oxygen barrier layer covering the cardboard layer on the inside (metal foil therefore an oxygen barrier; column 7, lines 59 – 64) and an inner, heat sealable coating of a thermoplastic material (likewise from a cardboard composite, therefore the cardboard composite of the tube shaped body; column 8, lines 1 – 7), the bottom with its rim being drawn upwards and outwards over the end face of the body and heat – sealed to the inside and outside of the body (the bottom is flanged with its end face around the end face of the sleeve; column 8, lines 1 – 7). Kucherer discloses a second layer of cardboard between the cardboard layer, and the barrier layer (the cardboard is a laminate; column 7, lines 59 – 64), therefore a carrier layer for the barrier layer, but does not disclose that the second cardboard layer is an abuse resistant layer. However, Ford teaches that cardboard is an abuse – resistant layer (column 4, lines 1 – 3); the carrier layer disclosed by Kucherer is therefore an abuse resistant layer. Kucherer fails to disclose a heat resistant outer varnish outer coating layer of the body and the bottom providing the coated surface with a coefficient of friction of between 0.10 and 0.45.

Swoboda et al teach the use of an outer varnish layer for a paper container (coating having varnish gloss, therefore an outer varnish, for a paperboard container; column 8, lines 40 – 46) that is heat resistant (column 10, lines 35 – 36) and provides a coefficient of friction of 0.2 (column 1, lines 21 – 27) for the purpose of obtaining a container having improved printing quality (column 8, lines 40 – 46). One of ordinary skill in the art would therefore have recognized the advantage of providing for the outer varnish layer of Swoboda et al in Kucherer,

which is a cardboard container and therefore a paper container, depending on the printing quality of the end product.

It therefore would have been obvious for one of ordinary skill in the art at the time Applicant's invention was made to have provided for a heat resistant outer varnish outer coating layer of the body and the bottom providing the coated surface with a coefficient of friction of between 0.10 and 0.45 in Kucherer in order to provide improved printability as taught by Swoboda et al.

With regard to Claim 2, as stated above the barrier layer disclosed by Kucherer is metal foil, therefore providing impermeability to oxygen, therefore having an oxygen transmission rate in air at conditions of 23 degrees Celsius, 50% relative humidity and no absolute pressure differential between the outside and inside of the container of less than 0.0002 ml per day and per cm² container surface.

With regard to Claims 3 – 4, as stated above the outer varnish layer disclosed by Swoboda et al is heat – resistant, and therefore resistant to discoloration and dislocation under heat sealing conditions comprising a dwell time of from 1.6 to 3.0 seconds, a temperature of 170 to 260 degrees Celsius and a pressure of the heat sealing tool of 1 to 22 MPa.

With regard to Claims 5 – 7, the varnish layer disclosed by Swoboda et al comprises a primer comprising styrenated acrylic resin and a pigment (base coat, therefore a primer, comprising a styrene acrylic polymer and a pigment; column 8, lines 15 – 25) that is heat seal resistant (the base coat and topcoat both comprise lacquer or styrene acrylic resin and are therefore the same material; the base coat is therefore heat resistant as stated above, and therefore heat seal resistant; column 8, lines 15 – 25).

With regard to Claim 8, Swoboda et al fail to teach an outer varnish layer that is applied to a total dry weight of 0.8 to 1.2 g/m² on the cardboard layer. However, Swoboda et al teach the selection of amount of coating depending on the desired insulation of the surface of the layer (the surface is covered with an insulating coating covering at least ten percent of the surface; column 4, lines 25 – 34). Therefore, one of ordinary skill in the art would have recognized the utility of varying the amount of coating to obtain the desired insulation. Therefore, the desired insulation would be readily determined by through routine optimization of the amount of coating by one having ordinary skill in the art depending on the desired use of the end product as taught by Swoboda et al.

It therefore would be obvious for one of ordinary skill in the art to vary the amount of coating, and therefore the coating weight, in order to obtain the desired insulation, since the desired insulation would be readily determined through routine optimization by one having ordinary skill in the art depending on the desired end result as shown by Swoboda et al.

With regard to Claim 12, Kucherer fails to disclose a barrier layer having a thickness of 7 to 9 µm. However, Kucherer discloses a wall which is sufficiently thick to provide dimensional stability to the bottom (column 8, lines 62 – 65). Therefore, one of ordinary skill in the art would have recognized the utility of varying the wall thickness to obtain the desired dimensional stability. Therefore, the dimensional stability would be readily determined by through routine optimization of the wall thickness by one having ordinary skill in the art depending on the desired use of the end product as taught by Kucherer.

It therefore would be obvious for one of ordinary skill in the art to vary the wall thickness in order to obtain the desired dimensional stability, since the dimensional stability would be

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readily determined through routine optimization by one having ordinary skill in the art depending on the desired end result as shown by Kucherer.

With regard to Claims 16 – 17, Swoboda et al teach inside coating with polyethylene terephthalate (column 17, lines 13 – 18) and therefore teaches an abuse resistant carrier that is a tough high strength polymeric material having a tensile strength of 350 to 450 NI 15 mm.

With regard to Claim 18, Swoboda et al fail to teach a cardboard layer of the bottom having a weight ranging from 180 to 340 g/m², and a cardboard layer of the tube – shaped body having a weight ranging from 360 to 480 g/m². However, Swoboda et al teach that the weight of the cardboard is selected depending on the desired ease of forming (column 9, lines 10 – 16). Therefore, one of ordinary skill in the art would have recognized the utility of varying the weight to obtain the desired ease of forming. Therefore, the ease of forming would be readily determined by through routine optimization of the weight by one having ordinary skill in the art depending on the desired use of the end product as taught by Swoboda et al.

It therefore would be obvious for one of ordinary skill in the art to vary the weight in order to obtain the desired ease of forming, since the ease of forming would be readily determined through routine optimization by one having ordinary skill in the art depending on the desired end result as shown by Swoboda et al.

With regard to Claim 22, Swoboda et al teach a coating comprising polyolefin such as a polyethylene (column 17, lines 13 – 18) and therefore teach a coating comprising low density polyethylene.

7. Claims 13 – 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kucherer (U.S. Patent No. 5,123,573) in view of Ford (U.S. Patent No. 6,053,326) and Swoboda et al (U.S. Patent No. 6,740,373 B1) and further in view of Becker et al (U.S. Patent No. 3,223,310).

Kucherer, Ford and Swoboda et al disclose a laminate comprising an outer cardboard layer and carrier layer comprising cardboard and a barrier layer as discussed above. With regard to Claims 13 – 15, Kucherer, Ford and Swoboda et al fail to disclose an adhesive layer comprising polyethylene resin between the outer cardboard layer and carrier layer and barrier layer.

Becker et al teach the use of an adhesive comprising polyethylene resin (column 3, lines 29 – 34) in a laminate comprising cardboard and metallic foil (column 3, lines 44 – 52) for the purpose of obtaining a laminate that provides a barrier to moisture (column 3, lines 55 – 56). One of ordinary skill in the art would therefore have recognized the advantage of providing for the adhesive of Becker et al in Kucherer, Ford and Swoboda et al, which comprises an laminate comprising cardboard and metallic foil, depending on the desired barrier to moisture of the end product.

It therefore would have been obvious for one of ordinary skill in the art at the time Applicant's invention was made to have provided for an adhesive comprising polyethylene in Kucherer, Ford and Swoboda et al, therefore between the outer cardboard layer and carrier layer and barrier layer, in order to obtain a laminate that provides a barrier to moisture as taught by Becker et al.

8. Claims 19 – 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kucherer (U.S. Patent No. 5,123,573) in view of Ford (U.S. Patent No. 6,053,326) and Swoboda et al (U.S. Patent No. 6,740,373 B1) and further in view of Johnson et al (U.S. Patent No. 3,973,719).

Kucherer, Ford and Swoboda et al disclose a sealable container comprising a heat seal layer as discussed above. With regard to Claims 16 – 17, Kucherer, Ford and Swoboda et al fail to disclose a heat seal layer comprising an ionomer which is heat sealable at 90 to 200 degrees Celsius comprising ethylene vinyl acetate.

Johnson et al teach a seal layer comprising ethylene vinyl acetate (column 5, lines 1 – 10) in a sealable container (column 3, lines 43 – 47) for the purpose of obtaining a container that is peelably heat sealable (column 5, lines 1 – 10). One of ordinary skill in the art would therefore have recognized the advantage of providing for the ethylene vinyl acetate of Johnson et al in Kucherer, Ford and Swoboda et al, which is a sealable container, depending on the peelability of the end product.

It therefore would have been obvious for one of ordinary skill in the art at the time Applicant's invention was made to have provided for a seal layer comprising ethylene vinyl acetate, therefore an ionomer which is heat sealable at 90 to 200 degrees, in Kucherer, Ford and Swoboda et al in order to obtain a container that is peelably heat sealable as taught by Johnson et al.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marc A Patterson whose telephone number is 571-272-1497. The examiner can normally be reached on Mon - Fri 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon can be reached on 571-272-1498. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Marc Patterson 6/27/05
Marc A. Patterson, PhD.
Examiner
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